



# How Can California Spur Job Creation?

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## SUMMARY

California has short- and long-term labor market problems—there were steep employment declines during the recent recession, and the state’s unemployment rate is persistently higher than the national average. Recent job losses have led to proposals for state policies to spur job creation. This report examines two “direct” job creation policies: subsidies to employers to hire workers (“hiring credits”) and subsidies to individuals to enter the labor market (“worker subsidies”). Hiring credits act to increase the demand for labor, and worker subsidies aim to increase labor supply. Under normal circumstances, either policy should lead to higher employment. However, short- and long-term goals turn out to be of critical concern when considering the effectiveness of each policy.

In the short term, when recovery from the recession is the paramount goal, hiring credits are likely to be the better policy response. To be most effective, hiring credits should focus broadly on the recently unemployed and establish incentives for new hires rather than increases in the work hours of existing employees. In the longer term, when the labor market has recovered more fully from the recession and the focus can shift to the persistently higher unemployment in California, greater reliance on worker subsidies—most likely in the form of a state Earned Income Tax Credit (EITC)—would prove beneficial.

Either program would be costly to implement. Rough calculations suggest that the cost per job created using worker subsidies would be \$12,000 to \$207,000, and the cost for hir-

ing credits would be \$9,100 to \$75,000. These cost ranges do not take into account other fiscal or macroeconomic benefits associated with these policies, including such difficult-to-measure effects as reducing expenditures on unemployment insurance and welfare payments, increasing tax receipts, or stimulating the economy—all of which could lower the ultimate costs of these programs. But even if program costs were lower, feasible levels of state funding would at best contribute only modestly toward helping California's labor market recover from the recession.

Still, there may be good reason to pursue these policies, with short- and long-term goals in mind. If policymakers want to confront the aftermath of the recent recession, hiring credits can be made more cost-effective by using simple program rules and setting a relatively low hurdle for employers to claim the credit. When the state's economy and budget situation improve, the beneficial effects of a state EITC for low-income families might offset the EITC's greater cost per job produced. California might best follow other states and specify the EITC as an add-on to the federal EITC.

When the economy is strong, the state may want to rely less on hiring credits and more on worker subsidies to spur job creation. But to prepare for future recessions, a flexible approach may be best. California could create a hiring credit program that remains on the books permanently—one that aggressively rewards the hiring of unemployed workers during economic downturns but "turns off" during better economic times.

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## Introduction

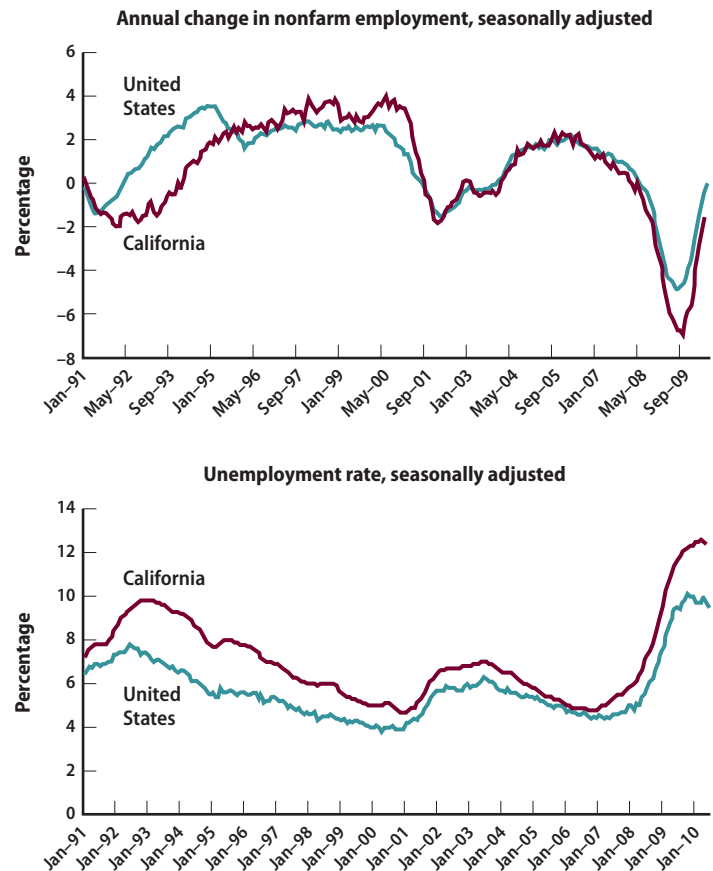
California has both short-term and long-term labor market problems. Of course, the short-term problem has received most attention lately. Job creation began to slow in 2007 and declined sharply in 2008 and 2009 in both California and the United States as a whole. However, in addition to these short-term cyclical changes, the unemployment rate is persistently higher in California (Figure 1).<sup>1</sup> Thus, although the scale of the recent job losses and the increase in the unemployment rate are striking, California's long-term unemployment problems suggest that policy debate about job creation policies should not focus *solely* on the short-term response to the recession.

This conclusion is reinforced by two facts. First, the state's current budget problems limit any short-term response. Second, the recent recession was sufficiently severe that even the best state policies would likely lead only to incremental changes; recovery from the recession in the state will require recovery at the national and international levels as well. State policy may be able to make a bigger dent in California's long-term unemployment problem.

This report focuses on two "direct" job creation policies that aim to increase employment by lowering the cost of labor. The first is subsidies to employers to hire workers ("hiring credits"). Hiring credits effectively subsidize wages when employers hire from particular groups of workers. Because these credits lower the cost of labor to firms, they increase the demand for labor.<sup>2</sup> The second is subsidies to individuals to enter the labor market ("worker subsidies"). Worker subsidies raise the effective wage that people earn from working, hence encouraging people to work and increasing labor supply. Economic theory predicts that, under normal circumstances, either policy

**Recovery from the recession in the state will require recovery at the national and international levels as well.**

**Figure 1. The recession hit California hard, but state unemployment is persistently higher than the national rate**



SOURCES: Data in the top panel are based on the Current Employment Statistics payroll survey; data in the bottom panel are based on the Bureau of Labor Statistics Current Population Survey.

should lead to higher employment. However, their actual effects may differ. As we shall see, hiring credits may be the best option for addressing California's short-term labor problem. But for the long term, worker subsidies are likely to be more effective.

To be clear, hiring credits or worker subsidies are not the *only* ways to spur job creation, nor are they necessarily the best way to do so. But they have the most direct effect on the behavior of either workers or firms that leads to more employment, and hence there is good reason to believe that these policies are likely to be the most effective at job creation.<sup>3</sup>

Certainly, state policymakers have proposed many policies that might create jobs. Examples include sales and use

tax exemptions for manufacturing, corporate tax reductions and reforms, a new state enterprise zone, reducing regulations, development of high speed rail, more school construction, lower capital gains taxes, and hiring credits for welfare recipients, veterans, and the unemployed.<sup>4</sup>

However, this report does *not* consider these policies or any other “indirect” job creation policies. Indirect policies change the economic incentives facing businesses or workers. They may increase employment, but in terms of the underlying economics, they do not directly target increases in the aggregate level of employment, and in some cases they may not increase employment at all.

For example, enterprise zones target employment growth in particular locations, rather than statewide, and may lead to employment growth in one place offset at least in part by employment declines in others or, as Kolko and

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Typically, job creation policies have more to do with smoothing out the business cycle, making the declines in employment and increases in unemployment less severe.

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Neumark (2009) find for California, may fail to create jobs altogether. Subsidizing business activities other than hiring, such as investment in machinery, could reduce employment by lowering the price of capital relative to labor. And policies that favor businesses generally—such as reducing taxes or regulatory costs—should help those businesses become more profitable and expand their workforces; but such policies do not necessarily reduce the relative price of labor, so the cost per job “produced” from such policies may be quite high.<sup>5</sup>

For the following discussion of hiring credits and worker subsidies, it is critical to understand clearly what “job creation” entails. In no way should it be inferred that a job created by either a hiring credit or a worker subsidy is permanent. People leave and enter jobs and the labor

market frequently, particularly low-skilled individuals who would be the targets of either policy. But even if low-skilled individuals enter jobs that tend to be of short duration, if a policy leads to the creation of more such jobs or encourages more low-skilled individuals to look for work, then the economy will have a higher share of its population employed at any point in time—which can lead to a higher long-term level of employment.

The distinction between short- and long-term solutions to California’s labor market problems marks an important theme throughout this report. Typically, job creation policies have more to do with smoothing out the business cycle, making the declines in employment and increases in unemployment less severe. This is true, for example, of a hiring credit policy that encourages employers to hire unemployed workers, because there will be more such unemployed workers during and just after a recession. (And it is certainly true of the recent federal stimulus package.) In contrast, the federal Earned Income Tax Credit—the principal worker subsidy discussed in this report—has been maintained continuously since its adoption and, for reasons discussed below, may increase employment over the long run despite being relatively ineffective at countering recessions. These differences in the timing—or “dynamics”—of the effects of hiring credits and worker subsidies inform the recommendations this report makes regarding the job creation policies California might adopt.

The remainder of the report proceeds as follows. First, hiring credit policies are discussed and reviewed in detail. Then, the predicted effects of these credits and—most important—the existing evidence on their effects are discussed. A similar discussion of worker subsidies follows. With the groundwork laid, arguments in favor of one policy or the other are presented and evaluated, including the costs of job creation under each policy and their relative effectiveness in addressing the short-term response to the recession and the long-term response to high unemployment in California. Next, the costs of these policies are estimated in light of the recent federal stimulus expenditures, to provide some guidance as to how much effect these programs—hiring credits in particular—could

realistically have in terms of helping the state recover from the recession. Finally, some specific recommendations for making either policy more effective are discussed, followed by some more general recommendations for policies the state might consider in both the short and long term.

## Hiring Credits

Hiring credits subsidize wages when employers hire from particular groups of workers. To a large extent, federal hiring credits have focused more on encouraging hiring among hard-to-employ groups than on countering downturns in the business cycle. In the past, Job Opportunities in the Business Sector (JOBS) targeted young disadvantaged workers, and the Work Incentives Tax Credit (WINTC) targeted Aid to Families with Dependent Children (AFDC) recipients. Other federal credits that targeted these groups and other disadvantaged individuals have included the Targeted Jobs Tax Credit (TJTC), the Work Opportunities and Welfare-to-Work Tax Credits (WOTC and WtWTC, which remain in place), and the Job Training and Partnership Act (JTPA).

Using hiring credits to combat recessions has been less common. The federal New Jobs Tax Credit (NJTC) was enacted to counter the recession of the mid-1970s; it did not target particular groups but instead was “noncategorical.”<sup>6</sup> The very recent Hiring Incentives to Restore Employment (HIRE) Act targets those who have been unemployed or who are entering employment from out of the labor force, offering a reduction in the employer’s payroll tax burden for much of 2010. However, the HIRE Act does not explicitly target job creation by, for example, rewarding hiring only in growing firms.

States make extensive use of hiring credits. Table 1 lists current federal policies and examples of state policies. Some states (Florida and Maryland) focus on the unemployed, as does the federal HIRE Act. Others couple hiring credits with requirements for investment in facilities (Delaware) or training (Iowa). Some states tie the credit to what the new jobs pay. And almost all try to ensure that

the credits are paid for new job creation.<sup>7</sup> Only a handful of states (including Maryland, Massachusetts, New Mexico, New York, and Rhode Island) currently have hiring credits targeting the disadvantaged, which is the focus of federal hiring credits.

California enacted a hiring credit (the New Jobs Credit, or NJC) in 2009. The NJC targets small businesses generally, rather than the disadvantaged or the unemployed (Table 2).<sup>8</sup> Hiring credit proposals in California in the past year have included expanding the employer size cutoff for eligibility for the NJC and targeting the unemployed or narrow, disadvantaged groups.

### How Do They Work?

Economic theory predicts that a hiring credit will boost employment. Without a hiring credit, initial employment and wages are determined by the intersection of the labor demand and labor supply curves. Because a hiring credit reduces the effective wage paid by employers, it increases labor demand—meaning that employers would like to hire more workers than they would in the absence of the credit. This shift in labor demand leads to higher employment and also increases the wages paid to workers (which is why



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*Hiring credits increase labor demand by reducing the effective wage paid by employers.*



Table 1. Hiring credit programs, 2010

A. Federal		
HIRE Act	Exemption from employer share of Social Security taxes (6.2%) for March–December 2010; \$1,000 tax credit per worker for workers unemployed or not employed (for more than 40 hours total) in 60 days before being hired, for those hired into new positions or into existing positions if the previous worker left voluntarily or for cause	
WOTC	Varying maximum credit amounts for long-term and other recipients of Temporary Assistance for Needy Families (TANF), veterans, recipients of Supplemental Nutrition Assistance Program benefits, residents of designated communities, summer youth, the disabled, ex-felons, Supplemental Security Income recipients, Katrina “employees,” and disconnected youths hired for a two-year period; credit is a percentage of qualified wages, which are capped (percentage and cap differ by group)	
B. States (examples)		
Connecticut	New Jobs Creation Tax Credit	Discretionary tax credit up to 60 percent of the income tax for taxpayers that create and maintain at least 10 full-time new jobs
Delaware	Blue Collar Job Act	Credits up to 50 percent of firm’s tax liability for eligible businesses that are engaged in a qualified activity, hire five or more qualified employees, and invest at least \$200,000 (\$40,000 per qualified employee) in a qualified facility; also \$400 corporate income tax credit per employee and per \$100,000 investment
Florida	Jobs for the Unemployed Tax Credit Program	Tax credit of \$1,000 for each new hire who was previously unemployed for a minimum of 30 days and remains employed after a 12-month period at an average of 36 hours per week
Georgia	Quality Jobs Credit	Credit of \$2,500–\$5,000 per job per year, for up to five years, for companies that create at least 50 jobs with salaries of at least 110 percent of the county average; credit rises with ratio of salary to county average, from \$2,500 for 110–120 percent of county average to \$5,000 for 200 percent or more of county average
Illinois	Small Business Job Creation Tax Credit	\$2,500 tax credit for employers with 50 or fewer total employees who hire new, full-time Illinois employees for new, full-time jobs sustained for at least one year; job must pay at least \$25,000 per year
Iowa	New Jobs Tax Credit	Credit for businesses entering into jobs training agreement with a community college, and increasing base employment level by at least 10 percent; credit is 6 percent of qualifying wages
Maryland	Job Creation and Recovery Tax Credit	Credit up to \$5,000 for hiring individuals receiving unemployment insurance benefits or who exhausted benefits in the previous 12 months and were not working full time immediately preceding the date of hire; hiring into full-time positions that are new or have been vacant for at least 6 months
Rhode Island	Hiring of Unemployed or Low-Income Residents	Credit of 40 percent (up to maximum of \$2,400) for newly hired state residents previously unemployed or receiving public assistance; worker must have been unemployed for at least 26 consecutive weeks before being hired and either received public assistance for at least one year or received unemployment benefits at any time during the prior 52 weeks
West Virginia	Corporate Headquarters Credit	Tax credit offsetting up to 100 percent of tax liability for companies that relocate corporate headquarters to West Virginia and create 15 new jobs (including relocating employees)

NOTE: Currently, more than 40 states have statewide hiring credits (excluding statewide but not local enterprise zones).

more are now willing to work). However, the wage cost to the employer is less than the wage paid to the worker, with the difference exactly equal to the hiring credit. This simple logic probably underlies the perception that hiring credits are the most effective way to spur job creation.

In practice, however, complications can reduce—perhaps substantially—the effects of hiring credits.<sup>9</sup> First,

because the goal of hiring credits is to create incentives for employers to create jobs, a well-designed hiring credit tries to reward increases in employment that would not have otherwise occurred. This is difficult to accomplish. Research makes clear that a substantial share—often as high as 90 percent of total hiring credit payments—pays for hiring that would have occurred anyway; these

payments are “windfalls” for employers.<sup>10</sup> Thus, policy-makers usually end up imposing administrative requirements on firms claiming hiring credits to try to identify new hiring, and the cost of complying with these requirements can deter firms from using the program.<sup>11</sup>

The second complication arises when hiring credits are targeted at disadvantaged workers—as they often are. The targeting of hiring credits on disadvantaged workers can “stigmatize” them. When workers signal their eligibility for a hiring credit, they simultaneously tell employers that they have low qualifications and have not, in the past, succeeded in the labor market. Employers are therefore likely to regard these eligible workers as less productive. Research indicates that, as a result, hiring credits that stigmatize workers can weaken or even eliminate the incentive to hire the very workers for whom the hiring credit is supposed to spur employment (Katz 1998). Moreover, documenting the eligibility of workers based on disadvantaged status can also entail administrative costs.

### How Effective Are They?

Much of the past research on the effects of hiring credits focuses on credits targeting the disadvantaged.<sup>12</sup> This research establishes some important findings about hiring

credits that bear on their design and implementation, especially regarding the consequences of administrative costs and stigma effects. However, research on hiring credits used to counter recessions—in particular, the NJTC, which was in effect from mid-1977 to the end of 1978 to help spur economic recovery after the recession of the early 1970s—may be more relevant in thinking about policy responses to the recent recession.

In programs targeting the disadvantaged—such as JOBS and WINTC—a fairly small share of potential federal hiring credits is actually claimed by employers. Some interpret this low uptake as evidence of the detrimental effect of the high administrative costs involved with claiming hiring credits (Katz 1998). In contrast, the more broadly targeted NJTC was more likely to be claimed by employers.<sup>13</sup> Because the NJTC did not specifically target only disadvantaged groups, it may have entailed smaller administrative costs for employers.

Evidence that the NJTC was more effective at larger firms (Perloff and Wachter 1979) is also consistent with evidence on the importance of administrative costs. These costs likely have a large fixed component that can be spread over more workers at large firms. This finding suggests, therefore, that the effectiveness of California’s NJC may be

**Table 2. California’s current and proposed hiring credit programs**

<b>A. Current</b>	
New Jobs Credit (2009)	\$3,000 per full-time employee (one working more than 35 hours a week for the whole year, otherwise prorated) hiring credit to small employers (fewer than 20 employees to start) that increase the number of full-time employees; credit capped at \$400 million (cumulatively)
<b>B. Proposed</b>	
Governor’s job package (State of the State, 2010)	\$3,000 reimbursement for hiring previously unemployed Californians
SB 59 (Work Opportunity Tax Credit, R)	Tax credit to employer to hire someone in the California Work Opportunities and Responsibility for Kids (CalWORKs) program, parolees, probationers, veterans, or unemployment insurance benefit recipients
SB 63 (Veterans Hiring Tax Credit, R)	25 percent tax credit up to \$6,000 of first year wages for each recently discharged and unemployed veteran hired and retained at least 120 hours
AB 2630 (Investment Tax Credit, R)	Expands NJC definition of qualified employer to 50 or fewer employees, retaining the \$400 million cap and other features of NJC
AB 1973 (Re-Entry Tax Credit for Business, D)	Hiring credit up to \$5,000 for first and second year of employment of ex-offenders convicted of a (nonsexual, nonviolent) felony

NOTES: Senate Bill (SB) numbers listed are for 8th Extraordinary Session. “R” or “D” denotes that the bill was introduced by a Republican or Democratic member. AB is Assembly Bill.

limited by targeting small firms. Moreover, high utilization of a program makes job creation more likely but does not guarantee it. For example, many claims under the TJTC were spurred by management assistance companies that helped employers file claims retroactively for eligible workers they had hired (Lorenz 1995).

There is stronger evidence on the detrimental aspects of stigma effects. Stigma effects can go so far as to eliminate the effects of hiring credits for narrow target populations. In an experimental program for welfare recipients, under the TJTC, one group received vouchers to present to employers for direct cash rebate subsidies; a second group received vouchers that let employers claim hiring credits under existing programs; and a third group was eligible for the same credits but neither received vouchers to give to employers nor were told that they were eligible. As it turns out, the third group had the most success in finding employment (Burtless 1985), likely confirming the adverse stigma effects for the other two groups.<sup>14</sup>

Despite stigma effects and administrative costs, what does the research literature say more generally about whether hiring credits boost employment? Hiring credits that target the disadvantaged can be effective at increasing employment for some groups, although often they are not. Moreover, when they boost employment, it is because they are combined with other efforts to help the targeted population find and keep jobs, through such efforts as job search assistance and job development.<sup>15</sup> Research also indicates that hiring credits targeting the disadvantaged do relatively little to increase the incomes of low-income families, because there are many nonpoor families with low-wage workers, and many poor families have no workers.<sup>16</sup>

Evidence on the effectiveness of the NJTC is more positive, perhaps because the NJTC avoided stigma effects by not targeting the disadvantaged and entailed lower administrative costs.<sup>17</sup> Firms that reported knowing about the NJTC had significantly higher employment growth (Perloff and Wachter 1979). However, this does not prove that the NJTC boosted employment growth, because firms where employment was growing may have had a “greater incentive to learn about the program” (Katz 1998, p. 31).

Based on variation in employment growth when the credit was implemented, the NJTC appears to have increased employment in construction, trucking, retail, and wholesale trade by about 400,000 jobs, or about 0.5 percent of economy-wide employment (Bishop 1981).<sup>18</sup> However, it is not easy to sort out the effects of other aggregate changes affecting these industries from the effects of the NJTC.

A cautious conclusion, based on this evidence, suggests that the NJTC was effective at creating jobs, stating that a “temporary, noncategorical, incremental [worker] subsidy has some potential for stimulating employment growth” (Katz 1998, p. 31). This cautious conclusion echoes the authors of the original studies.<sup>19</sup> Recently, researchers calling for a federal hiring credit to counter the recent recession have argued, referring to the same body of evidence, that the evidence on the NJTC is unambiguously positive, arguing that “tax credits for new jobs have been tried before, and they worked well” (Bartik and Bishop 2009, p. 9), and that “the NJTC probably generated at least a million jobs by the end of 1978” (Bishop 2008, p. 5). Based on the evidence, however, the more cautious summary of the evidence along the line of Katz’s is more defensible.<sup>20</sup>

In weighing the evidence, it is important to keep in mind that the NJTC was used over 30 years ago, which introduces considerably uncertainty in extrapolating results to the present. Furthermore, none of the existing evidence comes explicitly from state hiring credit policies, which introduces yet another source of uncertainty in trying to predict the likely effects of a hiring credit in California. But the relatively pessimistic conclusions about the effectiveness of hiring credits apply to programs that target the disadvantaged. A broadly focused hiring credit program that targets the recently unemployed and intends to counteract a recession may be more effective.

## Worker Subsidies

In contrast to hiring credits, worker subsidies encourage people to work by supplementing labor market earnings with additional income. At the federal level, the EITC pays



this role, by subsidizing the employment of workers in low-income families. In 2010, the EITC paid a 40 percent subsidy on the initial earnings of families with two qualifying children; if, for example, the family earned \$10,000 in the labor market, the EITC brought income to \$14,000. This subsidy increases over the “phase-in range,” up to a maximum credit (in 2010, \$5,036 for families with two children). There is then a “plateau”—an income range over which the maximum benefit remains fixed. Finally, there is a “phase-out” range over which the credit is reduced by 21.06 percent of earnings until, at an income level of \$40,363 for a family with two children, benefits have been eliminated. For families with one child, the subsidies are smaller, and there is a very small EITC available to those without children.<sup>21</sup> Many states also have their own EITCs, usually as a supplement to the federal EITC (Table 3). California has never had its own EITC, although proposals to establish one have been considered in the past (Table 4).

### How Do They Work?

In contrast to a hiring credit, which increases labor demand, the EITC increases labor supply. Because the EITC raises a worker’s effective wage (the market wage plus the EITC subsidy), it encourages people to work. For example, faced with a market wage of \$8 an hour and no EITC subsidy, a single mother with two children may be better off if she does not work, given the costs of child care, clothes for work, and commuting. However, with a 40 percent supplement that brings her effective wage to \$11.20, work may become more attractive.

Although it may seem counterintuitive, increasing the supply of labor to the market can—just like a hiring credit—increase employment. Before the worker subsidy is put into place, initial employment and wages are—again—determined by the intersection of labor supply and demand. The worker subsidy shifts labor supply, increasing how many people are willing to work at any wage—since workers receive a subsidy from the government for working, more of them are willing to work (or to work more) at any given market wage than they were in the absence of the EITC. Note that the market wage declines, owing

to the increased number of people working, which is why employers are willing to hire more workers. But the worker’s take-home wage—defined as the market wage plus the worker subsidy, is higher than the initial wage. Thus, although perhaps not as intuitively simple, the EITC acts just like a hiring credit—lowering labor costs to employers and increasing employment (and workers’ pay).

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However, just as in the case of hiring credits, complications arise that can undermine this process. In the case of the EITC, the main issue is the interplay of employment among family members. Some people may enter the labor market because of the EITC, but others may reduce the number of hours they work. Or some spouses of employed people (in contrast to single heads of household) may exit the labor market altogether. These effects arise in families in which earnings are above the phase-in range, because above the phase-in range, the EITC either gives families an amount of income that does not change with earnings (on the plateau) or reduces their income as earnings increase (in the phase-out range). Economic theory predicts that, for these families, there may be an incentive to reduce hours or, equivalently, for a secondary worker in the family to leave the workforce.

The complex effects of the EITC reflect the fact that it is not intended as a pure job creation policy. Rather, it is intended to increase the likelihood that low-income single women work. For this population, there is a clear prediction that employment will increase,<sup>22</sup> and more generally the EITC will increase incomes in low-income families. But there is no way to avoid the incentives that the EITC creates for those already employed (or who are secondary workers) to work less, because EITC benefits have to be

Table 3. The federal EITC and selected state EITC programs, 2010

<b>A. Federal EITC, 2010</b>				
	<b>3 or more children</b>	<b>2 children</b>	<b>1 child</b>	<b>No children</b>
Phase-in rate (% subsidy to earnings)	45%	40%	34%	7.65%
Maximum credit	\$5,666	\$5,036	\$3,050	\$457
Income at which maximum credit is reached	\$12,590	\$12,590	\$8,970	\$5,980
Income at which phase-out begins	\$16,450	\$16,450	\$16,450	\$7,480
Phase-out rate (% reduction in credit with additional earnings)	21.06%	21.06%	15.98%	7.65%
Income at which credit is eliminated	\$43,352	\$40,363	\$35,535	\$13,460
<b>B. State EITCs, 2009</b>				
	<b>Percentage of federal EITC</b>			
Delaware	20% (nonrefundable)			
District of Columbia	40%			
Illinois	5%			
Indiana	9%			
Iowa	7%			
Kansas	17%			
Louisiana	3.5%			
Maine	5% (up to \$125 refundable for joint filers)			
Maryland	50% nonrefundable or 25% refundable			
Massachusetts	15%			
Michigan	20%			
Minnesota	Varies with number of children, averages 33%			
Nebraska	10%			
New Jersey	25%			
New Mexico	10%			
New York	30%			
North Carolina	5%			
Oklahoma	5%			
Oregon	6%			
Rhode Island	25% (nonrefundable, but 15% of amount is refundable)			
Vermont	32%			
Virginia	20% (nonrefundable)			
Wisconsin	4% (1 child), 14% (2 children), 43% (3 or more children)			

NOTES: In Panel A, the separate credit for three or more children is a temporary measure for the 2009 and 2010 tax years, included in the American Recovery and Reinvestment Act, after which the numbers for families with two children apply to families with two or more children. Numbers shown are for those filing singly. Phase-in and phase-out rates are the same for those filing jointly; incomes at which the phase-out rate begins and incomes at which the credit is eliminated are higher by \$5,010 for those filing jointly. In Panel B, if not noted, state EITC is refundable. The dollar amounts are indexed.

SOURCES: Tax Policy Center, Urban Institute, and Brookings Institution ([www.taxpolicycenter.org/briefing-book/key-elements/family/eitc.cfm](http://www.taxpolicycenter.org/briefing-book/key-elements/family/eitc.cfm)); State EITC Online Resource Center ([www.stateeitc.com/map/index.asp](http://www.stateeitc.com/map/index.asp)).

Table 4. Proposed EITC legislation in California

Legislative session	Bill	Description
1999–2000	AB 1854	<i>Refundable</i> Earned Income Credit (EIC) equal to 15 percent of the federal EITC
1999–2000	SB 1421	
2000–2001	AB 106	
2003–2004	SB 224	
1999–2000	AB 2466	<i>Nonrefundable</i> EIC in an amount equal to an unspecified percentage of the federal EITC
2007–2008	AB 21	<i>Nonrefundable</i> state EITC equal to 4 percent of taxable income for low- and moderate-income taxpayers, up to maximum of \$200 per year

NOTE: All of the EITC bills were introduced by Democratic legislators.

phased out as income rises. These adverse work incentives, plus the payment of EITC benefits to many workers who are employed anyway, parallel the potential problem of windfalls in hiring credit programs—that is, costs of the program that do not contribute to increased employment.

### How Effective Are They?

Much of the empirical research on the EITC has focused on single mothers, for whom this program is most likely to increase employment. The evidence is overwhelming that, as predicted by theory, a higher EITC increases employment for this group. Most of this evidence focuses on the federal EITC, although some of it also comes from evidence on state supplements to the federal program.<sup>23</sup>

Studies have also examined labor supply effects among those already working and, in particular, secondary workers in families. The evidence is generally consistent with the prediction that work will decrease among these groups, although estimates vary from no effect to sizable effects.<sup>24</sup>

Many studies have evaluated the effects of the 1993 expansion of the federal EITC. These studies suggest that this policy change raised the employment rate of low-skilled single mothers by 18 to 23 percentage points (Ellwood 2000) and the employment rate of single mothers overall by about 6 to 7 percentage points (Meyer and Rosenbaum 2001).<sup>25</sup> In contrast, the employment rate of less-educated married men increased very slightly, and the employment rate of less-educated married women declined by just over 1 percentage point (Eissa and Hoynes 2004).

Paralleling the literature on the federal EITC, evidence on state EITCs finds that the strongest and largest effects are the positive effects on the employment of single mothers (Neumark and Wascher forthcoming). Further, there is no evidence that the state EITCs reduced the employment or hours worked of married women, although there are negative consequences for other groups who compete with single mothers for employment.

It is more difficult to estimate the overall effects of the EITC on labor supply. Research indicates that, on net, the EITC increases the total number of hours worked.<sup>26</sup> Some find that when the federal EITC expanded sharply between 1993 and 1998, weeks worked among single women with children rose substantially relative to married women with children and single women without children (Blank, Card, and Robins 2000). This evidence is not only consistent with the positive employment effects for single mothers noted above but also suggests that, for women, the net effect of the EITC on the total amount of labor supplied to the market is positive, with the increased number of work weeks associated with positive employment effects among single mothers outweighing any reductions in hours among those who were already working.<sup>27</sup>

Overall, then, there is a fairly strong consensus that the EITC has positive job creation effects—increasing the *number* of people employed. If that is the main or the only goal of policy, then the reductions in the number of hours worked of those already employed may be regarded as unimportant. However, the combined evidence suggests



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*The main beneficiaries of the EITC are low-skilled single mothers and their families.*

that even if these reductions in hours are taken into account, the EITC increases the total amount of labor supplied to the market. And although the direct evidence on state EITCs is more sparse, it appears that this conclusion applies at least as strongly to the state EITCs as to the federal EITC.

The EITC has the added benefits—from most peoples’ perspective—of raising the incomes of poor and low-income families.<sup>28</sup> But recent research has highlighted some potential negative consequences of the EITC for other groups. Because the employment-increasing effects of the EITC for some groups increase competition with those already in the labor market, the EITC can reduce the income and employment of low-skilled workers ineligible for the EITC.<sup>29</sup> However, evidence on the effects of state EITCs suggests that the positive employment effect for less-educated single mothers with children is about six times as large as the negative employment effect for less-educated childless individuals and about 2.4 times as large as the negative employment effect for less-educated childless blacks and Hispanics.<sup>30</sup> These negative consequences for workers who compete with the main beneficiaries of this policy need to be included when weighing the costs and benefits of the EITC but, overall, the positive effects far outweigh the negative.

In sum, worker subsidies in the form of an EITC have two benefits. They induce people to take jobs, which increases employment. And in so doing, these subsidies increase the incomes of poor and low-income families. However, as the next section discusses, these conclusions do not imply that worker subsidies are necessarily preferable to hiring credits as a job creation strategy, especially for the short-term policy goal of helping California recover from the recent recession.

## Hiring Credits Versus Worker Subsidies

As already explained, both hiring credits and worker subsidies can spur job creation.<sup>31</sup> The evidence generally suggests that both policies accomplish this goal. This section synthesizes the existing evidence to consider the arguments in favor of each policy. This discussion suggests that determining which policy is preferable may depend on what is considered: the short-term response to the recession and its aftermath or long-term efforts to increase employment and reduce unemployment. Finally, it summarizes what we know about the cost-effectiveness of the two policies in creating jobs—that is, the cost per job created.

### Reasons to Favor Worker Subsidies

Worker subsidies have the advantage of avoiding the stigma effects and administrative costs of hiring credits. The EITC does not have stigma effects because, in contrast to hiring credits, employers typically have no idea that an employee is eligible for the EITC. And the EITC is easily administered through the tax code.<sup>32</sup> A state EITC is particularly simple when it “piggybacks” on the federal EITC calculation from the federal tax return, as most state EITCs do. This is reflected in state EITC tax forms, which just require a few items from the federal tax form and the federal EITC calculation.<sup>33</sup> In contrast, states have chosen very heterogeneous hiring credits, and there appear to be no state hiring credit programs that supplement federal credits in a simple way. Instead, employers have to certify



eligibility for credits with state tax authorities, likely entailing substantial administrative costs.

Worker subsidies like the EITC also have better effects in terms of helping poor and low-income families. The one other existing study that presents a thorough comparison of worker subsidies and hiring credits emphasizes the beneficial effects of the EITC on the income distribution (Dickert-Conlin and Holtz-Eakin 2000, p. 269). This study also comes down on the side of using worker subsidies for job creation. However, this conclusion is based on evidence on the effects of hiring credits on the employment of disadvantaged workers, for which, as discussed above, hiring credits are quite ineffective. The evidence suggests that a non-categorical hiring credit such as the NJTC—focused more on the unemployed in general rather than on disadvantaged workers, and created to respond to a recession—has greater potential to create jobs.

### Reasons to Favor Hiring Credits

Despite the disadvantages of hiring credits discussed above, they may be a more effective job creation policy than worker subsidies—at least in the short term. During a recession, the overriding concern of policymakers is surely putting more people back to work and lowering the unemployment rate. As a result, any state effort to enhance or broaden hiring credits would (or at least should) focus on the unemployed rather than on specific disadvantaged groups. A hiring credit focused broadly on the unemployed could substantially mitigate the stigma effects and administrative costs that have diluted the effectiveness of past hiring credit programs.

First, stigma effects would likely be less severe with a broad-based hiring credit. To illustrate: A hiring credit for ex-felons may reduce the cost of hiring ex-felons relative to other workers, but by signaling ex-felon status it may reduce employment for this group. In contrast, with national unemployment hovering near 10 percent (12% in California), eligibility for a hiring credit based on current unemployment may not send employers much of a bad signal—everyone understands that many people have become unemployed in the current downturn through no fault of their own.

Second, in a period when employment has largely been falling (and is now growing slowly), it should be easier to reward hiring that would not have occurred but for the credit, reducing windfalls for firms that would be hiring anyway.<sup>34</sup> For example, in the current environment, basing eligibility simply on whether a firm's employment is growing might pose acceptable windfall costs, and such a simple rule for establishing eligibility would impose smaller costs on firms, making the credit more effective. Similarly, a credit targeting the recently unemployed should be administratively simple, as it is easy to verify unemployment status.

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**A hiring credit focused broadly on the unemployed could substantially mitigate the stigma effects and administrative costs that have diluted the effectiveness of past hiring credit programs.**

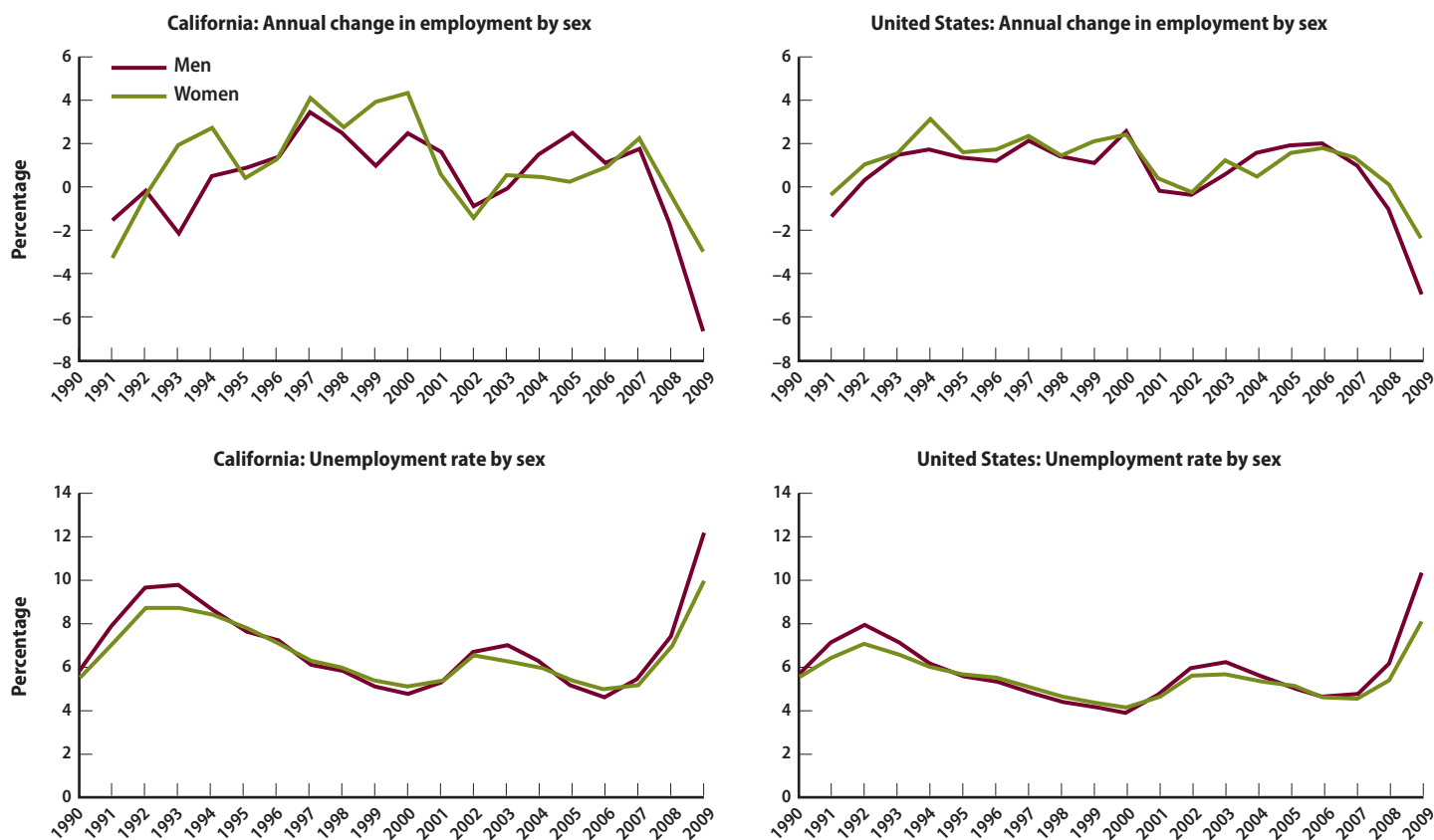
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Third, although worker subsidies allow for the greater concentration of benefits on poor and low-income families, in the near term such priorities may merit less emphasis. Policies—such as the EITC—that aim in part to redistribute income to low-income families focus attention on female-headed families with children, which are vastly overrepresented among the poor. However, the recent recession has had substantially greater adverse effects on men than on women. In both California and the United States, employment growth slowed and the unemployment rate rose much more sharply for men than for women after 2007 (Figure 2).<sup>35</sup> This suggests that a state EITC would do little to help the group most hurt by the recent recession. Thus, in the near term, a policy that redirects more of the benefits toward men may be called for. A hiring credit—and in particular one focused on the unemployed—would do this.

Finally, for meeting short-term goals, economic theory likely favors hiring credits over an expanded EITC. The discussion above of the effects of hiring credits and worker



Figure 2. The recession has hurt men more than women



SOURCE: Bureau of Labor Statistics, Current Population Survey, Annual Averages.

subsidies is premised on labor markets “clearing,” meaning that employment and wages are determined by the intersection of labor supply and demand. But labor markets may not clear during recessions. Among economists, the more widely held view of recessions—and certainly of the recent downturn—is that they are caused when aggregate demand in the economy declines and wages do not fall to clear the labor market. In this case, increasing labor supply, as an EITC would do, does nothing to increase employment; if wages cannot adjust downward, then increasing labor supply does not lower wages paid by employers, so employers do not increase hiring.<sup>36</sup> Hiring credits, by helping to increase the demand for labor, would be more effective than worker subsidies in this scenario.<sup>37</sup>

These arguments favoring hiring credits over worker subsidies are more germane to the short-term response

to the recession. In normal times, policymakers might be more inclined to use hiring credits to target the disadvantaged rather than the unemployed more generally—targeting that makes hiring credits less effective. In addition, with the recovery of industries in which men are overrepresented, policymakers would likely be more inclined to refocus attention on assuring adequate income for female-headed households with children. And finally, with labor market equilibrium restored, and both aggregate labor demand and labor supply determining employment, the relative effectiveness of worker subsidies would likely increase.

#### How Much Do These Policies Cost?

Whether either policy is worth pursuing—and, if so, which one—hinges in part on the cost per job created.

Not surprisingly, it is very difficult to estimate these costs. And there is no information available on how they might differ in the current environment—with very high unemployment—and in the long term. The cost estimates summarized here are more the result of assumptions and back-of-the-envelope calculations than rigorous evidence. As such, they can at best provide only a rough guide.

**Hiring credits.** It is easy to measure dollars paid out in hiring credits. But calculating costs per job created requires knowing the effects of the credit on job creation. Even a hiring credit program deemed particularly effective at creating jobs is estimated to have paid out 92 percent of credits for jobs that would have been created anyway, and the more typical figure may be 96 percent (Bartik and Erickcek 2010). The implication is that the cost per job created under a hiring credit is much higher than the value of the credit paid out when an eligible worker is hired. Of course, that does not mean that the costs of hiring credits are necessarily prohibitive. The \$3,000 credit under California’s NJC might have to be multiplied by 10 or more to get the cost per job created, suggesting a cost of \$30,000 or more to create a job.

But this may be a cost policymakers are willing to pay, and it may be cheaper than the cost of creating jobs via other policies. Most important, perhaps, the jobs created may deliver other benefits from stimulating the economy and allowing workers to remain employed and retain their skills. Although no one claims that the full costs can be recouped—or that a hiring credit (or other policy) pays for itself—these benefits do lower the net cost of the policy. Finally, as suggested above, in a high unemployment economy, the “wastage” or “windfalls” associated with hiring credits may be reduced, because it is easy to create incentives that reward only new hiring.<sup>38</sup>

Taking these considerations into account, the range of estimates for costs per job created using a hiring credit range from about \$9,100 to \$75,000, and there are reasons to believe that the upper range of these cost estimates could be quite a bit lower (perhaps by one-half or more) for a hiring credit sharply focused on the recently unemployed and used during a period in which unemployment remains inordinately high.<sup>39</sup>

**Worker subsidies.** Because of the potentially large groups of people who do not increase their employment, and may even decrease employment in response to an EITC, estimated costs per job created are typically higher, but the range of costs is also wider. Based on evidence from the effects of both the federal EITC and state EITCs, the range of estimates is from about \$12,000 to \$207,000, with a larger body of evidence suggesting a somewhat narrower range of \$50,000 to \$117,000.

**Costs in perspective.** These estimates of costs per job created by either hiring credits or worker subsidies ignore some other potential benefits and hence should be viewed as estimates of gross rather than net costs per job created. In other words, these policies likely deliver some benefits that—either directly or indirectly—imply that the policies *in part* pay for themselves. The net costs of either type of policy would be lower to the extent that the added employment from a hiring credit reduces other government expenditures (such as unemployment insurance

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These policies likely deliver some benefits  
that—either directly or indirectly—imply that  
the policies *in part* pay for themselves.

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or welfare benefits) or increases tax receipts. These cost savings are likely to be only a fraction of the cost per job created described above—but likely not a trivial fraction. There also may be long-term benefits to keeping people employed and off public benefits, although these are hard to estimate.<sup>40</sup> Costs could also be lowered if increased employment from a hiring credit or a worker subsidy leads to stimulative effects on the economy.<sup>41</sup> Of course, either policy would be financed by taxes, which reduce someone else’s income. But to the extent that such a policy transfers income to those who spend a higher share of their income on current consumption (a higher “marginal propensity to consume out of income”), they could have stimulative effects leading to additional government revenue.

Given the tremendous uncertainty associated with these effects, it is not possible to pin down how much lower than gross costs the net costs of these policies would be—although clearly they would be lower. Gross costs could overstate many-fold the net costs once these other offsets are taken into account. For instance, some research on hiring credits has estimated the net cost per job created to be \$4,700 to \$6,300—based on estimates of a fairly high success rate in creating jobs, along with estimates of extra gross domestic product (GDP) and hence higher government revenues and lower government expenditures that would be created by a hiring credit.<sup>42</sup> Even if these estimates were two to four times higher—which might be more plausible—they would still be well below some of the gross cost figures cited above.

Despite the uncertainty, perhaps the most important lesson is that the cost of creating jobs with an EITC, in particular, *could* be very high. As a pure job creation strategy intended to counter the recent recession, then, the EITC is likely to be inferior to a hiring credit. This conclusion should be tempered, however, because there is simply less rigorous evidence on the effects of hiring credits on employment, and some of the cost estimates of hiring credits are based on strong conclusions about the success of an

anti-recessionary hiring credit program from the 1970s that may not be justified.

## How Much Impact Could Direct Job Creation Policies Have?

As the discussion of costs presented above suggests, implementing direct job creation policies requires considerable government investment. How many jobs would these policies yield in California—and how much would the state need to spend? Can California significantly alter the effect of the recession—especially given its ongoing budget woes? To gain some perspective on these questions, this section examines recent federal efforts to counter the recession and estimates what kind of effect state spending—particularly through a hiring credit program—might have on the labor market.

Federal efforts to counter the recession, and the cost per job of these efforts, shed some light on the relative magnitudes of the effects of federal spending compared to the potential effects of direct job creation policies. The Congressional Budget Office (CBO 2010) estimates that, as of the end of the second quarter of fiscal year 2010 (September 2010), \$570 billion of the total American Recovery and Reinvestment Act stimulus funding will have been spent. It also estimates that, as of that same quarter, employment was higher than it would have been without this spending by 1.4 to 3.6 million jobs. Measured this way, these figures imply costs per job created of \$158,000 to \$407,000.<sup>43</sup> Other studies of the recent stimulus spending have found lower costs per job, but for the purposes of this report the CBO numbers are most useful.<sup>44</sup>

Before comparing the job creation costs of the stimulus to those of hiring credits or worker subsidies, we should briefly consider how long jobs last.<sup>45</sup> If new jobs were going to last one year rather than one week, we would presumably place more value on a higher employment level at a point in time. To the extent that jobs created by the stimulus are relatively short-term, these jobs might be viewed as less valuable—at least compared to those normally produced by the private sector.<sup>46</sup> However, given that low-



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*Hiring credits could spur job creation in male-dominated industries (like construction) that were hit hard by the recession.*

skilled workers have much higher unemployment rates than high-skilled workers, it is probably best to think about the stimulus as mainly targeting sets of workers similar to those targeted by hiring credits and worker subsidies, at least when hiring credits focus on the unemployed. The jobs created might then be thought of as lasting as long as jobs typically last for the relatively low-skilled, implying that this consideration would not influence comparisons of the costs of creating jobs via the stimulus versus creating them with hiring credits or with worker subsidies.

How does the cost of creating jobs through the federal stimulus compare with the costs of hiring credits or worker subsidies? The discussion in the previous section suggested that the range of estimates per job created using worker subsidies is \$12,000 to \$207,000, and the range for hiring credits focused on the unemployed is \$9,100 to \$75,000 and perhaps much lower if we take account of multiplier effects (which the CBO estimate does). These ranges suggest that it is very likely that the costs of creating jobs via hiring credits are *much* lower than the costs of creating jobs via the federal stimulus.<sup>47</sup> This is likely also the case for worker subsidies, although here the ranges overlap, making this comparison less clear unless one is confident that the costs of job creation via worker subsidies are at the lower end of the range of estimates provided above.

These comparisons might suggest that California could do a lot more to create jobs than the federal stimulus could—especially through hiring credits. However, the fiscal resources of the federal government, because of its ability to borrow vast sums, far outweigh the fiscal resources of the state government. This is true even in the best of times, let alone during California's current budgetary difficulties.

To put the federal role in perspective, let us assume that the range of job creation effects of the stimulus was distributed to California in proportion to its population (12%). This puts the range of federal job creation, at a point in time, at 168,000 to 396,000. Using these estimates, and assuming no other changes, the implication is that without the federal stimulus, California's unemployment rate (in November 2010) would have ranged from 13.3 percent to 14.6 percent, instead of the actual rate of 12.4 percent.<sup>48</sup>

It is very likely that the costs of creating jobs via hiring credits are *much* lower than the costs of creating jobs via the federal stimulus.

But these federal efforts are costly. Assuming that the federal stimulus funds spent so far (\$570 billion) were also distributed in proportion to California's 12 percent share of the U.S. population, California would have received \$68 billion of the stimulus. Based on midpoints of the estimated costs per job created through each policy, costs break down accordingly: \$290,000 per job via stimulus spending, \$110,000 via worker subsidies, and \$42,000 via hiring credits. That is, hiring credits—which appear most effective—are about 6.9 times more effective than stimulus spending.

A state hiring credit program would be costly, too. For California to get a job creation effect equivalent to that of the federal stimulus, the state would have had to spend a total \$9.9 billion (the estimated federal stimulus spending in California, divided by 6.9). There is likely no possibility of spending anything near that amount.

More realistically, suppose that the state spent one-tenth of this amount, or approximately \$1 billion. Using the midpoint of the hiring credit estimates of costs per job created (\$42,000), this would lead to about 24,000 more jobs, which would lower the (November 2010) 12.4 percent unemployment rate to 12.26 percent, a decline of less than two-tenths of a percentage point. If we instead took the low estimate of the cost of creating jobs via hiring credits, then the spending of \$1 billion would create 110,000 jobs, lowering the unemployment rate to 11.8 percent, or a decline of six-tenths of a percentage point.

What these calculations illustrate is that, even under the rosier scenario (a low estimate of the cost of creating jobs via hiring credits), the state's ability to significantly affect the labor market is limited. A more cautious view of those costs only reinforces this conclusion. This does not imply that an aggressive pursuit of job creation through a policy of hiring credits (or even worker subsidies) is not worthwhile. But there should be no illusion that these policies can do



anything but partially mitigate the effect of the recession. The ability of federal policy to counter the cycle is far greater, and, of course, the ability of the economy itself to create jobs, as it recovers, swamps the effects of either state or federal policy.

## Making Hiring Credits or Worker Subsidies More Effective

This analysis of hiring credits and worker subsidies would not be complete without some consideration of the implementation details of each policy.<sup>49</sup> The research literature and some recent proposals point to ways to make both hiring credits and worker subsidies more effective. This section summarizes the most important points, including proposals for lowering costs.

With regard to hiring credits, the research suggests a number of areas of improvement. First, to reduce windfalls, spending on credits can be concentrated during and soon after recessionary periods, when, because job growth is low (or negative), fewer firms would likely be experiencing employment growth absent the hiring credit. Second, hiring credits should be short-term and temporary to shift hiring *into* the period in which job growth is subpar. Third, avoiding retroactive filing for hiring credits will probably increase the likelihood that payments go for hiring that was induced by the credit, rather than paying firms for past hiring unrelated to the credit. Fourth, hiring credits should create explicit incentives for growth in employment, rather than hours worked, to minimize costs per job created.<sup>50</sup> For example, California's NJC explicitly targets full-time workers.<sup>51</sup> Finally, there is a natural tendency for business groups to push to expand eligibility for any hiring credit, providing broader tax relief for businesses rather than targeting the policy explicitly on job creation.<sup>52</sup> Thus, it is important to implement a hiring credit that keeps the focus on new job creation.

There are a number of proposals to reduce the costs of worker subsidies. These include ideas for structuring state EITCs differently and reducing costs per job created by improving targeting. Federal EITC payments go to families well above the poverty line, to avoid phasing out benefits

too quickly. In addition, individuals with high wages but low hours worked may be eligible for the EITC, because it is based on income during the year, but there is little rationale for policies to transfer income to high-wage individuals.<sup>53</sup> To address these problems, one proposal suggests a "wage-based" EITC that pays higher benefits the higher the share of full-time work in a family (MaCurdy 2004). A wage-based EITC could provide similar incentives and benefits for low-wage workers and greater work incentives for high-wage workers, while lowering program expenses by reducing benefits for families with high-wage and part-time workers. A drawback to this alternative is that it poses greater administrative challenges than would a simple supplement to the federal EITC.

Another possibility is to use a more narrowly targeted version of an EITC. For example, the Self-Sufficiency Project (SSP) in Canada focused on long-term welfare recipients and imposed a minimum work requirement of 30 hours per week, both of which should have vastly reduced the number of people who received the benefit without changing their behavior. Indeed, about one in two of those receiving SSP benefits enter employment because of the program, whereas for EITC, the ratio is about one in 20 (Bartik 2001). Clearly, a sizable increase in the ratio of the number of beneficiaries who change their behavior relative to the number who simply get the benefits of the program without changing their behavior could result in radically lower costs per job created than some of the estimates for the EITC discussed above.

Finally, a state (or local) EITC may have a larger effect than might be suggested simply by the dollar amounts of the state EITC benefits. In particular, we know that EITC take-up is high but below 100 percent (80 to 86% according to Scholz 1994). It is possible that a state EITC induces some of those eligible for the federal EITC to take it up, thus increasing the incentive effects of the federal program at relatively low cost. Indeed San Francisco's EITC (Working Families Credit) was explicitly intended to boost participation in the federal EITC, in part by publicizing the federal EITC and in part by increasing the incentive to apply for the federal EITC. (There is, as yet, no evaluation of whether the program increased take-up.)<sup>54</sup>



## Policy Recommendations

California faces high unemployment and weak job growth as a result of the recent recession. But California also has a long-term unemployment problem. In assessing hiring credits and worker subsidies, short- and long-term considerations play an important role. In the short term, when the problem is extraordinarily high unemployment, it is likely that hiring credits would have larger employment effects than worker subsidies, with lower (and possibly much lower) costs per job created. Given the state's budget crisis, the criterion of cost per job created is obviously central. In addition, hiring credits are likely to be more effective at increasing the employment of those recently unemployed than are worker subsidies. And, finally, hiring credits are likely more effective during an economic downturn. Thus, for addressing job creation in the short term, hiring credits are probably the best policy choice.

In the long term, however, other considerations come to the fore. These include the greater certainty regarding the effects of worker subsidies, the re-emergence of greater interest in the income distribution and other policy concerns as the economy recovers, and the lower effectiveness of hiring credits in increasing the employment of the "hard-to-employ." As a consequence, worker subsidies in the form of a state EITC should, in the long term, figure more prominently in the state's arsenal of job creation policies.

It is important to keep in mind that this report considers only the evidence on *direct* job creation policies: hiring credits and worker subsidies. The possibility that some indirect policy is more effective has not been completely ruled out or tested, based on a thorough review of the evidence. Nonetheless, with an appropriate understanding of this potential limitation, some specific policy recommendations regarding job creation policies emerge:

- In the short run, if state policymakers want to spend money on job creation, they should use hiring credits—while understanding that the effects are likely to be positive but modest relative to the overall effects of the recession and that the costs of countering the recession through hiring credits are high.
- To be most cost-effective, a hiring credit should focus on the recently unemployed. It should create incentives for new employment rather than increases in the work hours of existing employees. And it should use simple rules and a relatively low hurdle for employers to claim the credit. The state's current New Jobs Credit may well be too limiting: It does not target the recently unemployed specifically, it applies only to small firms, and the credit may be too low (at least relative to the current-dollar equivalent of the federal New Jobs Tax Credit used in the 1970s).
- In the long term (that is, when the state's economy and budget situation improve), California should give serious consideration to establishing a worker subsidy program in the form of a state EITC.
- The state might best follow many other states and specify the EITC as an add-on to the federal EITC. However, there is merit to considering an EITC that rewards full-time work, perhaps by imposing minimum hours requirements, so as to enhance the employment effects.
- To be better prepared to counter future recessions—which *will* occur—California should enact a hiring credit that remains on the books permanently but that more aggressively rewards the hiring of unemployed workers during economic downturns, and "turns off" during better economic times.

As we have seen, neither hiring credits nor worker subsidies could, at any plausible level of spending, make more than a modest dent in countering the lingering labor market effects of the recent recession. But there is a good chance that a hiring credit could make that dent at a moderate cost.

Perhaps the most important policy recommendations here concern planning for a time when the state's finances are improved—but before the next recession hits, as it inevitably will. Looking ahead, there are good reasons for the state to enact its own EITC—as many other states have done. And establishing a hiring credit program that kicks in automatically when the economy does slow down can at least cushion the state against the type of blow it has suffered recently. ●

## Notes

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<sup>1</sup> The higher unemployment rate in California is not attributable to demographic differences between California and the rest of the country. (Of course, even if it were, that would not imply that the state should not consider policies to increase employment and lower the unemployment rate.) California's population includes a much higher share of Hispanics, a somewhat lower share of blacks, a lower share of whites, and a higher share of Asians. The unemployment rate differential appears for each group and is in fact largest for whites. If the U.S.-California gap were attributable instead to California's having a higher representation of groups with high unemployment rates, there would be no unemployment gap for these separate groups. The conclusion that demographics do not account for California's higher unemployment rate was confirmed by a regression analysis using Current Population Survey Outgoing Rotation Group files for 1992–2007, which showed that the probability that a labor force participant was unemployed was higher in California than in other states and that this gap was not reduced by accounting for race, ethnicity, age, or education.

<sup>2</sup> When hiring credits are designed to encourage job creation—that is, net new hiring—they are sometimes referred to as “job creation tax credits.” This report uses the more generic label “hiring credit” but emphasizes the importance of designing hiring credits to encourage new hiring, rather than simply subsidizing hiring that would have occurred without the credit.

<sup>3</sup> One form of direct job creation policy that is not covered in this report is increases in direct employment by the public sector. Public employment is expensive. Although hiring credits and worker subsidies try to spur job creation by changing the marginal cost of, or marginal return to, work, public employment requires paying the entire cost of employing the worker. This may well explain why there is no movement toward creating public sector jobs—in California or at the federal level—as part of either a short-term response to the recession or a long-term employment strategy, with the exception of youth programs. This contrasts with hiring credits and worker subsidies, both of which are used extensively at the federal and state levels, and both of which are or have been the focus of recent proposals in California.

<sup>4</sup> The list of proposed policies is far more extensive. See <http://arc.asm.ca.gov/cajobs/?p=solutions>, <http://cssrc.us/publications.aspx?id=7554>, <http://senweb03.sen.ca.gov/focus/agenda2010/legislation.aspx>, [www.calchamber.com/governmentrelations/pages/jobcreators.aspx](http://www.calchamber.com/governmentrelations/pages/jobcreators.aspx), and <http://images.emaildirect.com/clients/govpressoffice847/SOTSJobsandEconomyPackage.pdf>. One

might also add training and workforce preparation to the list. However, much of the return to training and education comes in the form of higher wages for those employed—a worthy goal but not one directly related to job creation. The training literature is vast. For a thorough review focused on training programs that increase employment, see LaLonde (2003) and Card, Kluve, and Weber (2010).

<sup>5</sup> Moreover, even some proposals to reduce *labor* costs could actually reduce employment, if they do not reduce costs on the margin that affects hiring. For example, changing overtime rules to apply after a 40-hour week rather than an 8-hour day (as is currently done in California) could reduce employment and increase the hours worked of those employed, because such a policy change makes it relatively cheaper to have the same workers work longer days. See Hamermesh and Trejo (2000).

<sup>6</sup> Nonetheless, the NJTC created stronger incentives to hire low-wage workers by applying only to the first \$4,200 of wages per employee (in 1977 and 1978).

<sup>7</sup> Indeed, although not detailed in the table, some states have provisions to “recapture” some of the tax credit if net job creation falls below the targets for which credits were received.

<sup>8</sup> There is a cumulative spending cap of \$400 million for this credit; after the cap is reached, the credit will be discontinued ([www.ftb.ca.gov/aboutftb/Tax\\_Expenditure\\_Report\\_2009.pdf](http://www.ftb.ca.gov/aboutftb/Tax_Expenditure_Report_2009.pdf)), implying that the credit is temporary. However, claims thus far total less than one-tenth of this amount ([www.ftb.ca.gov/businesses/New\\_Jobs\\_Credit.shtml](http://www.ftb.ca.gov/businesses/New_Jobs_Credit.shtml)).

<sup>9</sup> These are discussed fully in Dickert-Conlin and Holtz-Eakin (2000) and Katz (1998).

<sup>10</sup> See, for example, Bartik and Erickcek (2010).

<sup>11</sup> Moreover, efforts to avoid windfalls can lead to unintended consequences that reduce job creation. For example, paying credits for new hires creates incentives for repeatedly firing some workers and hiring others to collect the credit; this “churning” does not increase employment. And even if policy avoids rewarding the simultaneous hiring and firing of workers at a particular business establishment, it may be harder to prevent churning in the form of hiring at some establishments belonging to a firm and firing at other establishments. On the other hand, efforts to reduce churning (at the establishment or firm level) by paying the credit only for job growth in excess of estimated job growth absent the credit is administratively expensive and likely unreliable. Moreover, this type of policy design can reward variation

in employment, since employment increases are rewarded but employment decreases are not penalized.

<sup>12</sup> Despite the many state hiring credit programs in existence (partially documented in Table 1), the existing research is nearly exclusively about federal programs, and there is very little empirical research evaluating the effectiveness of these state policies. One exception is Bartik and Erickcek's (2010) evaluation of the Michigan Economic Growth Authority Tax Credit Program. This is a strongly favorable evaluation, although two qualifications are in order. First, the program is quite different from other hiring credit programs. It is discretionary (in that the responsible agency evaluates the particular proposal in light of its potential benefits and costs), it is focused on a subset of industries (mainly manufacturing), and it pays credits for a very long period (up to 20 years). Second, the evaluation is not based on the kind of before-and-after analysis that typifies most research analyzing public policy and is instead based on a simulation model that takes many parameters from the existing literature. In addition, there are some evaluations of small-scale hiring credit (or "voucher") experiments, discussed below. Finally, a very recent and preliminary paper (Chirinko and Wilson 2010) estimates the effects of state hiring credits, finding some modest evidence of positive effects.

<sup>13</sup> The NJTC was claimed for 50 percent of eligible hires, whereas rates on the order of 10–20 percent were claimed for hiring credits more focused on the disadvantaged (Bartik 2001; Hamersma 2005).

<sup>14</sup> There is similar evidence from another randomized experiment discussed in Hollenbeck and Willke (1991).

<sup>15</sup> See Bloom et al. (1994), Farkas et al. (1984), Gueron and Pauly (1991), Hamersma (2008), and Katz (1998). Bartik (2001, Ch. 1) suggests that these other efforts in support of hiring credit programs may be the mechanism that helps to overcome stigma effects, by providing information to employers that the workers are more productive than their "stigmatizing characteristics" might suggest.

<sup>16</sup> See Dickert-Conlin and Holtz-Eakin (2000).

<sup>17</sup> The NJTC attempted to create incentives for new hiring in a simple way—by paying the credit for firms in which employment increased by more than 2 percent. There was also a maximum credit of \$100,000 per firm.

<sup>18</sup> Bishop (1981) suggests that these industries may be particularly sensitive to hiring credits, because capital equipment depreciates quickly and labor turnover is high.

<sup>19</sup> Perloff and Wachter (1979) conclude that "the New Jobs Tax Credit may have shifted the distribution of the rate of growth of employment" (p. 178). Bishop (1981) is firmer in drawing conclusions but acknowledges that "Perhaps the NJTC variable is capturing other exogenous forces that are inducing contemporaneous employment increases . . . in the sectors studied" so that "the conclusion that NJTC is having major effects on employment and prices must remain tentative until better data or more periods of observation become available" (p. 240).

<sup>20</sup> Indeed, Bartik and Bishop have earlier described the evidence more cautiously. Bishop's (1981) reservations were noted in the previous footnote. And Bartik (2001) wrote that "The NJTC may have created as many as 700,000 new jobs" (p. 226), indicating that the 700,000 figure was an upper bound, a qualification Bartik and Bishop (2009) omit when they write "Formal evaluations suggest that the 1977–78 NJTC was quite successful, creating 700,000 jobs by February 1978 and probably many more by December 1978" (p. 9).

<sup>21</sup> "Without children" means that there are no children who qualify the family for the higher EITC payment; this is based on which parent the child lives with for how much of the tax year. Similarly, the text often refers to those without children as "ineligible" for the EITC, even though they can get a very small credit if they are between ages 25 and 64.

<sup>22</sup> Indeed, the main reason for the popularity and increasing generosity of the EITC in recent decades is probably this pro-work incentive that it generates, which, along with welfare reform, was intended to shift the nation's income-support policies toward those that encouraged, rather than discouraged, work (see Blank, Card, and Robins 2000).

<sup>23</sup> A partial listing of the relevant literature on the federal EITC includes Meyer and Rosenbaum (2001), Eissa and Liebman (1996), and Keane and Moffitt (1998). The only exception to the evidence of positive employment effects is Cancian and Levinson (2005), who do not find evidence that the increase in Wisconsin's EITC for families with three children increased the employment of single mothers in this group. Neumark and Wascher (forthcoming) study state EITCs. Extensive literature reviews of the effects of the EITC are provided in Hotz and Scholz (2003) and Hoffman and Seidman (2003).

<sup>24</sup> Key references are Eissa and Hoynes (2004), Eissa and Liebman (1996), and Hoffman and Seidman (2003).

<sup>25</sup> This expansion raised the phase-in rate for families with one child from 18.5 percent to 34 percent and for families with two

or more children from 19.5 percent to 40 percent. It also introduced the small credit for families with no children.

<sup>26</sup> See Keane and Moffitt (1998), Dickert, Houser, and Scholz (1995), and Meyer and Rosenbaum (2001) for estimates for women and Dickert, Houser, and Scholz (1995) for total estimates.

<sup>27</sup> It is unlikely that the EITC has much effect on married women without children. It may have adverse effects on single women without children who may be less skilled and who face increased competition from single women with children who are induced to enter the labor market because of the EITC.

<sup>28</sup> For example, Scholz and Levine (2001) report that over 60 percent of EITC benefits go to taxpayers in families below the poverty line. And Neumark and Wascher (2001, forthcoming) find that state EITCs—because of their positive labor supply effects—lead to more families earning their way out of poverty (or extreme poverty, defined as one-half the poverty line); with the additional income supplement from the EITC, they are made even better off. There is similar evidence from other worker subsidies discussed in Blank, Card, and Robins (2000), with family income rising by substantially more than cash assistance for the most effective programs.

<sup>29</sup> See Rothstein (2008), Leigh (2010), and Neumark and Wascher (forthcoming).

<sup>30</sup> The employment declines among the latter group are unlikely to be as large as the employment increases among single mothers, because those without children are likely to find even low-wage work more attractive than not working.

<sup>31</sup> In fact, in simple, stylized cases, for the same percentage subsidy to hiring or employment, the *quantitative* effects on employment (and wages) are predicted to be *identical*.

<sup>32</sup> There is a sizable potential cost to taxpayers as a whole, although not to employers per se, from overclaiming of the EITC when children are claimed on tax returns but did not reside with the filer for the one-half year required by law. Hoffman and Seidman (2003, Ch. 7) discuss evidence suggesting that little of the overclaiming is fraudulent and summarize policy changes to reduce overclaiming.

<sup>33</sup> For examples, see [www.tax.state.ny.us/pdf/2009/fillin/inc/it215\\_2009\\_fill\\_in.pdf](http://www.tax.state.ny.us/pdf/2009/fillin/inc/it215_2009_fill_in.pdf) for New York, [www.iowa.gov/tax/forms/1040AShortBooklet09.pdf](http://www.iowa.gov/tax/forms/1040AShortBooklet09.pdf) for Iowa, and [http://forms.marylandtaxes.com/current\\_forms/resident\\_booklet.pdf](http://forms.marylandtaxes.com/current_forms/resident_booklet.pdf) (p. 9) for Maryland.

<sup>34</sup> However, the ability to easily create incentives for new hiring just because unemployment is high should not be overstated. The U.S. Bureau of Labor Statistics Job Openings and Labor Turnover Survey shows that, even during a recession, there are a lot of firms doing a lot of hiring.

<sup>35</sup> This is attributable to substantial employment declines in industries with a large share of males, in particular construction and manufacturing, in which the combined employment decline was about as large as the overall decline (from 2006 to 2009).

<sup>36</sup> Nonetheless, because the EITC induces some people to enter the labor market, it may change the composition of who is employed and could therefore still achieve some of its income distribution goals.

<sup>37</sup> The converse is also true: When labor markets are much tighter and unemployment is low, hiring credits may be quite ineffective at increasing employment, resulting, instead, mainly in higher wages.

<sup>38</sup> This may be the rationale for the HIRE Act's focus on rewarding hiring of the unemployed or those entering or reentering the labor market.

<sup>39</sup> For both hiring credits and worker subsidies, a longer working paper (Neumark 2011) provides more detail on the sources of these estimates and some guidance as to which estimates within these ranges are more plausible.

<sup>40</sup> In particular, policies that keep more people employed during an economic slowdown may help preserve workers' skills, which can mean higher wages and higher employment down the road. There is evidence of this kind of effect (in the opposite direction), which documents long-run deleterious effects on employment from time out of the labor force, whether due to high minimum wages during one's youth (Neumark and Nizalova 2007) or to previous unemployment spells (Mroz and Savage 2006). With respect to hiring credits, some research also assesses how long-lasting the effects of the credits are on affected individuals. Some studies find persistent effects on individuals' employment and earnings but others do not (Katz 1998); in any event, the persistence is weak at best.

<sup>41</sup> Economists refer to such stimulative effects as "multipliers." If an unemployed person gains a job, that person spends part of his or her income at other firms, leading those firms to increase hiring, etc.



<sup>42</sup> Bartik and Bishop (2009) estimate very large effects via this channel that offset more than 75 percent of a hiring credit that they propose. This is based on the assumption that each new job created generates an addition to GDP equal to the economy-wide average labor compensation (\$62,000). This seems quite high. Surely the estimate is subject to a great deal of uncertainty; and it seems that the calculation should be based not on average compensation but instead on a lower level of compensation that might be more likely for the workers who benefit from hiring credits.

<sup>43</sup> The report also estimates full-time-equivalent jobs created, which can include the effects of converting part-time to full-time jobs. These estimates range from 2.0 to 5.2 million, implying costs per full-time-equivalent job of \$110,000 to \$285,000.

<sup>44</sup> For these alternative estimates, see Council of Economic Advisers (2009). There is some ambiguity regarding how to count the jobs created by the stimulus (putting aside issues of how to estimate these effects). Since jobs are not permanent, some jobs created by the stimulus would already have ended by September 2010, in which case these estimates of costs per job created by the stimulus are too high, because they divide the cost of the stimulus by the employment differential at a point in time and do not include jobs that were created but already ended. The CEA report tries to account for this issue by estimating job creation as the sum of the employment differentials in each quarter in the president's first term (which roughly coincides with the period in which the stimulus is expected to have an effect). This lowers the estimate of cost per job created. However, since the job creation effects of hiring credits and worker subsidies were calculated based on employment at a point in time, rather than on the cumulative effects over many periods, the best comparison to the job creation costs of the stimulus is with the CBO estimates.

<sup>45</sup> The CEA report may appear to address this issue by reporting "job-years" created by the stimulus. Indeed, the report says "A job-year means simply one job for one year" (Council of Economic Advisers 2009, p. 3). What job-years actually means in this context is the accumulated sum of the employment differential measured once per year—a calculation that still ignores job durations.

<sup>46</sup> As noted above, though, even if the jobs directly created by a policy are short term, they may lead to higher employment in the long term.

<sup>47</sup> Even the CEA document suggests that the cost per job created via government spending is \$92,000 and the cost via cutting taxes or state fiscal relief is even higher (Council of Economic Advisers 2009).

<sup>48</sup> For the November 2010 numbers, see [www.edd.ca.gov/About\\_EDD/pdf/urate201011.pdf](http://www.edd.ca.gov/About_EDD/pdf/urate201011.pdf). The assumption of no other changes is not completely realistic. Typically, when job growth strengthens, some people who had previously given up looking for work reenter the labor force and look for work, in which case the unemployment rate would decline by less than would be predicted simply by the growth in jobs. Nonetheless (and for this reason), growth in the number of jobs is a better gauge of economic recovery than is the change in the unemployment rate (see Kwok, Daly, and Hobjin 2010).

<sup>49</sup> The longer accompanying working paper (Neumark 2011) provides a lengthier discussion of policy considerations.

<sup>50</sup> And increasing employment rather than hours worked will do more to reduce expenditures on Unemployment Insurance.

<sup>51</sup> In contrast, Bartik and Bishop's (2009) proposal calls for a hiring credit that is simply a percentage of payroll, because, they argue, "We want to provide incentives for hours increases as well as net additions to employment" (p. 12).

<sup>52</sup> Lorenz (1995) discusses the case of the TJTC, which was intended to reduce windfalls (and to relieve the administrative burden on employers) by mandating ongoing program evaluation with reporting to Congress on the credit's effectiveness in increasing employment among targeted groups. Lorenz argues, however, that, via the oversight process, interest groups distorted the credit into "a windfall for businesses that hire large numbers of low wage workers" (p. 270).

<sup>53</sup> Better targeting could also reduce the labor supply disincentives associated with the EITC for high-income families that are still eligible (MaCurdy 2004).

<sup>54</sup> See Flacke and Wertheim (2006) for a discussion of the Working Families Tax Credit. See Avalos and Alley (2010) for information on unclaimed federal EITC payments in California.



## References

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- Avalos, Antonio, and Sean Alley. 2010. "Left on the Table: Unclaimed Earned Income Tax Credits Cost California's Economy and Low-Income Residents \$1 Billion Annually." New America Foundation. Available at [www.newamerica.net/sites/newamerica.net/files/policydocs/Left\\_on\\_the\\_table\\_NewAmerica.pdf](http://www.newamerica.net/sites/newamerica.net/files/policydocs/Left_on_the_table_NewAmerica.pdf).
- Bartik, Timothy J. 2001. *Jobs for the Poor: Can Labor Demand Policies Help?* New York: Russell Sage Foundation.
- Bartik, Timothy J., and John H. Bishop. 2009. "The Job Creation Tax Credit: Dismal Projections for Employment Call for a Quick, Efficient, and Effective Response." Economic Policy Institute Briefing Paper No. 248.
- Bartik, Timothy J., and George Erickcek. 2010. "The Employment and Fiscal Effects of Michigan's MEGA Tax Credit Program." Working Paper No. 10-164, W. E. Upjohn Institute for Employment Research.
- Bishop, John H. 1981. "Employment in Construction and Distribution Industries: The Impact of the New Jobs Tax Credit." In *Studies in Labor Markets*, ed. Sherwin Rosen (Chicago: University of Chicago Press), 209–46.
- Bishop, John. 2008. "Can a Tax Credit for Employment Growth in 2009 and 2010 Restore Animal Spirits and Help Jump Start the Economy?" *Articles & Chapters*, Paper 184. Available at <http://digitalcommons.ilr.cornell.edu/articles/184>.
- Blank, Rebecca M., David E. Card, and Philip K. Robins. 2000. "Financial Incentives for Increasing Work and Income Among Low-Income Families." In *Finding Jobs: Work and Welfare Reform*, ed. David E. Card and Rebecca M. Blank (New York: Russell Sage Foundation), 373–419.
- Bloom, Howard S., et al. 1994. "The National JTPA Study: Overview: Impacts, Benefits, and Costs of Title II-A." Bethesda, MD: Abt Associates.
- Burtless, Gary. 1985. "Are Targeted Wage Subsidies Harmful? Evidence from a Wage Voucher Experiment." *Industrial and Labor Relations Review* 39 (1): 105–14.
- Cancian, Maria, and Arik Levinson. 2005. "Labor Supply Effects of the Earned Income Tax Credit: Evidence from Wisconsin's Supplemental Benefit for Families with Three Children." NBER Working Paper No. 11454.
- Card, David, Jochen Kluve, and Andrea Weber. 2010. "Active Labor Market Policy Evaluations: A Meta-Analysis." NBER Working Paper No. 16173.
- Chirinko, Robert S., and Daniel J. Wilson. 2010. "Job Creation Tax Credits and Job Growth: Whether, When, and Where?" Federal Reserve Bank of San Francisco Working Paper 2010-25.
- Congressional Budget Office. 2010. "Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output from April 2010 through June 2010." Report. Available at [www.cbo.gov/ftpdocs/117xx/doc11706/08-24-ARRA.pdf](http://www.cbo.gov/ftpdocs/117xx/doc11706/08-24-ARRA.pdf).
- Council of Economic Advisers. 2009. "Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009." Executive Office of the President of the United States.
- Dickert-Conlin, Stacy, and Douglas Holtz-Eakin. 2000. "Employee-Based Versus Employer-Based Subsidies to Low-Wage Workers: A Public Finance Perspective." In *Finding Jobs: Work and Welfare Reform*, ed. David E. Card and Rebecca M. Blank (New York: Russell Sage Foundation), 262–94.
- Dickert, Stacy, Scott Houser, and John Karl Scholz. 1995. "The Earned Income Tax Credit and Transfer Programs: A Study of Labor Market and Program Participation." In *Tax Policy and the Economy*, Vol. 9, ed. James Poterba (Cambridge, MA: MIT Press), 1–50.
- Eissa, Nada, and Jeffrey B. Liebman. 1996. "Labor Supply Response to the Earned Income Tax Credit." *Quarterly Journal of Economics* 111 (2): 605–37.
- Eissa, Nada, and Hilary Williamson Hoynes. 2004. "Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit." *Journal of Public Economics* 88 (9–10): 1931–58.
- Ellwood, David T. 2000. "The Impact of the Earned Income Tax Credit and Social Policy Reforms on Work, Marriage, and Living Arrangements." *National Tax Journal* 3 (4, pt. 2): 1063–1106.
- Farkas, George, et al. 1984. *Post-Program Impacts of the Youth Incentive Entitlement Pilot Projects*. New York and Oakland, CA: Manpower Demonstration Research Corporation.
- Flacke, Tim, and Tiana Wertheim. 2006. "Delivering a Local EITC: Lessons from the San Francisco Working Families Credit." Brookings Institution Survey Series (May). Available at [www.brookings.edu/~media/Files/rc/reports/2006/05childrenfamilies\\_flacke/20060516\\_SFWorks.pdf](http://www.brookings.edu/~media/Files/rc/reports/2006/05childrenfamilies_flacke/20060516_SFWorks.pdf).

- Gueron, Judith M., and Edward Pauly. 1991. *From Welfare to Work*. New York: Russell Sage Foundation.
- Hamermesh, Daniel, and Stephen Trejo. 2000. "The Demand for Hours of Labor: Direct Evidence from California." *Review of Economics and Statistics* 82 (1): 38–47.
- Hamersma, Sarah. 2005. "The Work Opportunity and Welfare-to-Work Tax Credits." Urban-Brookings Tax Policy Center Brief, No. 15.
- Hamersma, Sarah. 2008. "The Effects of an Employer Subsidy on Employment Outcomes: A Study of the Work Opportunity and Welfare-to-Work Tax Credits." *Journal of Policy Analysis and Management* 27 (3): 498–520.
- Hoffman, Saul D., and Laurence S. Seidman. 2003. *Helping Working Families: The Earned Income Tax Credit*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Hollenbeck, Kevin M., and Richard J. Willke. 1991. "The Employment and Earnings Impact of the Targeted Jobs Tax Credit." Upjohn Institute Staff Working Paper 91-07. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Hotz, V. Joseph, and John Karl Scholz. 2003. "The Earned Income Tax Credit." In *Means-Tested Transfer Programs in the U.S.*, ed. Robert Moffitt (Chicago: University of Chicago Press), 41–97.
- Katz, Lawrence F. 1998. "Wage Subsidies for the Disadvantaged." In *Generating Jobs: How to Increase Demand for Less-Skilled Workers*, ed. Richard B. Freeman and Peter Gottschalk (New York: Russell Sage Foundation), 21–53.
- Keane, Michael, and Robert Moffitt. 1998. "A Structural Model of Multiple Welfare Program Participation and Labor Supply." *International Economic Review* 39 (3): 553–89.
- Kolko, Jed, and David Neumark. 2009. *Do California's Enterprise Zones Create Jobs?* San Francisco: Public Policy Institute of California.
- Kwok, Joyce, Mary Daly, and Bart Hobijn. 2010. "Labor Force Participation and the Future Path of Unemployment." *FRBSF Economic Letter* 2010-27 (September 13), Federal Reserve Bank of San Francisco.
- LaLonde, Robert. 2003. "Employment and Training Programs." In *Means-Tested Transfer Programs in the United States*, ed. Robert A. Moffitt (Chicago: University of Chicago Press), 517–85.
- Leigh, Andrew. 2010. "Who Benefits from the Earned Income Tax Credit? Incidence among Recipients, Coworkers, and Firms." *B.E. Journal of Economic Analysis and Policy* 10 (1): Article 45.
- Lorenz, Edward C. 1995. "TJTC and the Promise and Reality of Redistributive Vouchering and Tax Credit Policy." *Journal of Policy Analysis and Management* 14 (2): 270–90.
- MaCurdy, Thomas. 2004. *Evaluating State EITC Options for California*. San Francisco: Public Policy Institute of California.
- Meyer, Bruce D., and Dan T. Rosenbaum. 2001. "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers." *Quarterly Journal of Economics* 116 (3): 1063–1114.
- Mroz, Thomas A., and Timothy H. Savage. 2006. "The Long-Term Effects of Youth Unemployment." *Journal of Human Resources* 41 (2): 259–93.
- Neumark, David. 2011. "Policies to Encourage Job Creation: Hiring Credits vs. Worker Subsidies." Working Paper, San Francisco: Public Policy Institute of California. Available at [www.ppic.org/content/pubs/wp/WP\\_211DNWP.html](http://www.ppic.org/content/pubs/wp/WP_211DNWP.html).
- Neumark, David, and Olena Nizalova. 2007. "Minimum Wage Effects in the Longer Run." *Journal of Human Resources* 42 (2): 425–52.
- Neumark, David, and William L. Wascher. Forthcoming. "Does a Higher Minimum Wage Enhance the Effectiveness of the Earned Income Tax Credit?" *Industrial and Labor Relations Review*.
- Neumark, David, and William Wascher. 2001. "Using the EITC to Help Poor Families: New Evidence and a Comparison with the Minimum Wage." *National Tax Journal* 5 (2): 281–318.
- Perloff, Jeffrey M., and Michael L. Wachter. 1979. "The New Jobs Tax Credit: An Evaluation of the 1977–78 Wage Subsidy Program." *American Economic Review Papers and Proceedings* 69 (2): 173–79.
- Rothstein, Jesse. 2008. "The Unintended Consequences of Encouraging Work: Tax Incidence and the EITC." Unpublished Paper, Princeton University.
- Scholz, John Karl. 1994. "The Earned Income Tax Credit: Participation, Compliance, and Anti-Poverty Effectiveness." *National Tax Journal* 47 (1): 63–87.
- Scholz, John Karl, and Kara Levine. 2001. "The Evolution of Income Support Policy in Recent Decades." In *Understanding Poverty*, ed. S. Danziger and R. Haveman (Cambridge and New York: Harvard University Press and Russell Sage Foundation), 193–228.

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